

ABSTRACT OF THE DISCLOSURE

The invention provides surface emitting semiconductor laser where a transverse mode is controllable stably, a method of manufacturing it and a light module and a light transmission device including the surface emitting semiconductor laser are provided.

A surface-emitting laser of the present invention can include a resonator formed on a substrate and can emit a laser from a emitting surface installed on the upper surface of a resonator toward the direction vertical to the substrate. This surface emitting semiconductor laser further includes first and second electrodes for injecting an electric current into the resonator. At least a part of the first electrode is formed on the upper surface of the resonator and includes an aperture in the resonator. The emitting surface is installed within the aperture. The reflectivity adjustment layer is formed on the emitting surface.